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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/587,568 | 01/10/2007 | Yoshito Oki | 293768US0PCT | 8924 |
| 22850 | 7590 | 01/27/2010 | | |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER WALCK, BRIAN D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1793 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/587,568 | Applicant(s) OKI ET AL. | |
| | Examiner Brian Walck | Art Unit 1793 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 and 10-28 is/are pending in the application.
- 4a) Of the above claim(s) 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 10-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-5 and 7-9 are canceled. Claims 22-28 are newly added. Claims 6 and 10-28 are pending where claims 6 and 10-21 have been amended. Claim 28 is withdrawn from consideration and claims 6 and 10-27 remain for examination on the merits.

Status of Previous Rejections

2. The previous 35 USC § 102/103 rejections of the claims have been maintained.

Election/Restrictions

3. Newly submitted claim 28 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the alloy of claim 6 could be cast in a mold.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 28 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 6 and 10-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2002-161323 to Shoji et al (cited by applicant in IDS) in view of the evidentiary references the article titled "Aluminum Alloys" by Lyle et al and the article titled "Aluminum and Aluminum Alloys" by Sanders.

Regarding claim 6 and 27, Shoji discloses a high-strength aluminum alloy fin material for heat exchangers having high strength and excelling in thermal conductivity and sacrificial anode effect comprising the following composition (Shoji, Table at top of page 7, alloy 14), which lies wholly within the instantly claimed composition:

| Element | Claimed wt% | Shoji wt% | Lies within? |
|---------|-------------|-----------|--------------|
| Si | 0.8-1.4 | 1.0 | Yes |
| Fe | 0.15-0.7 | 0.6 | Yes |
| Mn | 1.5-3.0 | 2.3 | Yes |
| Zn | 0.5-2.5 | 1.0 | Yes |
| Al | Balance | Balance | Yes |
| Mg | 0-0.05 | ~0 | Yes |

Although Shoji does not explicitly disclose that Mg is present as an impurity in the alloy, both Sanders (Sanders, page 305, "11. Aluminum Alloys") and Lyle (Lyle, page 12, "3.1.1. Impurities in the Molten Metal" and Table 4) disclose that Mg is either

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inherently present or is expected to be present as a trace impurity in typical aluminum alloys. Therefore, Mg is either inherently or expected to be present in the aluminum alloy of Shoji.

Although Shoji does not explicitly disclose the instantly claimed tensile strength before or after brazing or recrystallized grain size after brazing, when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established (see MPEP 2112.01 [R-3].) In the instant case, the aluminum alloy fin material of Shoji would be expected to have the same properties or very similar properties to the instantly claimed aluminum alloy fin material because both have the same composition, structure, and purpose. Therefore, a rejection based alternatively on either 35 U.S.C. 102(b) or 35 U.S.C. 103(a) is eminently fair and acceptable.

Regarding claims 10-14 and 22-25, the aluminum alloy fin material of Shoji lies wholly within the instantly claimed composition ranges.

Regarding claim 19-21, and 26 Shoji discloses that in alloy 14, Cu is present in an amount of 0.15 wt% (within the claimed range of at most 0.2 wt%), Zr is present in an amount of 0.2 wt% (within the claimed range of at most 0.2 wt%) and Cr, Ti, and V are present in no more than negligible levels (Shoji, Table at top of page 7, alloy 14). Sanders (Sanders, page 305, "11. Aluminum Alloys") and Lyle (Lyle, page 12, "3.1.1.

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Impurities in the Molten Metal" and Table 4) disclose that Cr, Ti, and V are present in trace quantities in aluminum metal

Regarding claims 15-18, although Shoji does not explicitly disclose the instantly claimed properties, when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established (see MPEP 2112.01 [R-3].) In the instant case, the aluminum alloy fin material of Shoji would be expected to have the same properties or very similar properties to the instantly claimed aluminum alloy fin material because both have the same composition, structure, and purpose. Therefore, a rejection based alternatively on either 35 U.S.C. 102(b) or 35 U.S.C. 103(a) is eminently fair and acceptable.

Response to Arguments

9. Applicant's arguments filed 10/21/2009 have been fully considered but they are not persuasive.

Applicant argues that Shoji does not explicitly disclose that Mg is present as an impurity. This is not found persuasive because both Sanders (Sanders, page 305, "11. Aluminum Alloys") and Lyle (Lyle, page 12, "3.1.1. Impurities in the Molten Metal" and Table 4) disclose that Mg is either inherently present or is expected to be present as a trace impurity in typical aluminum alloys. Therefore, Mg is either inherently or expected to be present in the aluminum alloy of Shoji.

Applicant argues that the **desirable** content range of Mn and Mg of Shoji is outside applicant's instantly claimed range. This is not found persuasive because regardless of the preferred ranges of Shoji, Shoji still discloses an alloy which falls wholly within the instantly claimed composition range.

Applicant argues that the alloy of Shoji may not have the instantly claimed grain size because one of applicant's comparative examples does not have the instantly claimed grain size. This is not found persuasive because the comparative example applicant refers to has a different composition and method of manufacturing than the example relied upon by Shoji, and as such provides no evidence that the example of Shoji does not have the instantly claimed grain size.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walck whose telephone number is (571)270-5905. The examiner can normally be reached on Monday-Friday 9 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571)272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian Walck/
Examiner, Art Unit 1793
/Scott Kastler/
Primary Examiner, Art Unit 1793